

Status: Point in time view as at 14/12/2009.

Changes to legislation: There are currently no known outstanding effects for the Regulation (EC) No 216/2008 of the European Parliament and of the Council (repealed), ANNEX Vb. (See end of Document for details)

[^{F1}ANNEX Vb

ESSENTIAL REQUIREMENTS FOR ATM/ ANS AND AIR TRAFFIC CONTROLLERS

Textual Amendments

F1 Inserted by Regulation (EC) No 1108/2009 of the European Parliament and of the Council of 21 October 2009 amending Regulation (EC) No 216/2008 in the field of aerodromes, air traffic management and air navigation services and repealing Directive 2006/23/EC (Text with EEA relevance).

1. Use of the airspace

- (a) All aircraft, excluding those engaged in the activities referred to in Article 1(2)(a), in all phases of flight or on the movement area of an aerodrome, shall be operated in accordance with common general operating rules and any applicable procedure specified for use of that airspace.
- (b) All aircraft, excluding those engaged in the activities referred to in Article 1(2)(a), shall be equipped with the required constituents and operated accordingly. Constituents used in the ATM/ANS system shall also comply with the requirements in point 3.

2. Services

- (a) Aeronautical information and data for airspace users for the purpose of air navigation
 - (i) The data used as a source for aeronautical information shall be of sufficient quality, complete, current and provided in a timely manner.
 - (ii) Aeronautical information shall be accurate, complete, current, unambiguous and be of adequate integrity in a suitable format for users.
 - (iii) The dissemination of such aeronautical information to airspace users shall be timely and use sufficiently reliable and expeditious means of communication protected from interference and corruption.
- (b) Meteorological information
 - (i) The data used as a source for aeronautical meteorological information shall be of sufficient quality, complete and current.
 - (ii) To the extent possible, aeronautical meteorological information shall be precise, complete, current, be of adequate integrity and unambiguous in order to meet the needs of airspace users.
 - (iii) The dissemination of such aeronautical meteorological information to airspace users shall be timely and use sufficiently reliable and expeditious means of communication protected from interference and corruption.
- (c) Air traffic services
 - (i) The data used as a source for the provision of air traffic services shall be correct, complete and current.
 - (ii) Air traffic services shall be sufficiently precise, complete, current, and unambiguous to meet the safety needs of users.

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- (iii) Automated tools providing information or advice to users shall be properly designed, manufactured and maintained to ensure that they are fit for their intended purpose.
- (iv) Air traffic control services and related processes shall provide for adequate separation between aircraft and, where appropriate, assist in protection from obstacles and other airborne hazards and shall ensure prompt and timely coordination with all relevant users and adjacent volumes of airspace.
- (v) Communication between air traffic services and aircraft and between relevant air traffic services units shall be timely, clear, correct and unambiguous, protected from interference and commonly understood and, if applicable, acknowledged by all actors involved.
- (vi) Means shall be in place to detect possible emergencies and, when appropriate, to initiate effective search and rescue action. Such means shall, as a minimum, comprise appropriate alerting mechanisms, coordination measures and procedures, means and personnel to cover the area of responsibility efficiently.

(d) Communication services

Communication services shall achieve and maintain sufficient performance with regard to their availability, integrity, continuity and timeliness. They shall be expeditious and protected from corruption.

(e) Navigation service

Navigation services shall achieve and maintain a sufficient level of performance with regard to guidance, positioning and, when provided, timing information. The performance criteria include accuracy, integrity, availability and continuity of the service.

(f) Surveillance service

Surveillance services shall determine the respective position of aircraft in the air and of other aircraft and ground vehicles on the aerodrome surface, with sufficient performance with regard to their accuracy, integrity, continuity and probability of detection.

(g) Air traffic flow management

The tactical management of air traffic flows at Community level shall use and provide sufficiently precise and current information of the volume and nature of the planned air traffic affecting service provision and shall coordinate and negotiate re-routing or delaying traffic flows in order to reduce the risk of overloading situations occurring in the air or at the aerodromes.

(h) Airspace management

The designation of specific volumes of airspace for a certain use shall be monitored, coordinated and promulgated in a timely manner in order to reduce the risk of loss of separation between aircraft in all circumstances.

(i) Airspace design

Airspace structures and flight procedures shall be properly designed, surveyed and validated before they can be deployed and used by aircraft.

3. Systems and constituents

(a) General

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ATM/ANS systems and constituents providing related information to and from the aircraft and on the ground shall be properly designed, manufactured, installed, maintained and operated to ensure that they are fit for their intended purpose.

(b) System and constituent integrity, performance and reliability

The integrity and safety-related performance of systems and constituents whether on aircraft, on the ground or in space, shall be fit for their intended purpose. They shall meet the required level of operational performance for all their foreseeable operating conditions and for their whole operational life.

(c) Design of systems and constituents

- (i) Systems and constituents shall be designed to meet applicable safety requirements.
- (ii) Systems and constituents, considered collectively, separately and in relation to each other, shall be designed in such a way that an inverse relationship exists between the probability that any failure can result in a total system failure and the severity of its effect on the safety of services.
- (iii) Systems and constituents, considered individually and in combination with each other, shall be designed taking into account limitations related to human capabilities and performance.
- (iv) Systems and constituents shall be designed in a manner that protects them from unintended harmful interactions with external elements.
- (v) Information needed for manufacturing installation, operation and maintenance of the systems and constituents as well as information concerning unsafe conditions shall be provided to personnel in a clear, consistent and unambiguous manner.

(d) Continuing level of service

Safety levels of systems and constituents shall be maintained during service and any modifications to service.

4. **Qualification of air traffic controllers**

(a) General

A person undertaking training as an air traffic controller or as a student air traffic controller, shall be sufficiently mature educationally, physically and mentally to acquire, retain and demonstrate the relevant theoretical knowledge and practical skill.

(b) Theoretical knowledge

- (i) An air traffic controller shall acquire and maintain a level of knowledge appropriate to the functions exercised and proportionate to the risks associated with the type of service.
- (ii) Acquisition and retention of theoretical knowledge shall be demonstrated by continuous assessment during training, or by appropriate examinations.
- (iii) An appropriate level of theoretical knowledge shall be maintained. Compliance shall be demonstrated by regular assessments or examinations. The frequency of examinations shall be proportionate to the level of risk associated with the type of service.

(c) Practical skill

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- (i) An air traffic controller shall acquire and maintain the practical skills appropriate to exercise his/her functions. Such skills shall be proportionate to the risks associated with the type of service and shall cover at least, if appropriate to the functions exercised, the following items:
 - i. operational procedures;
 - ii. task specific aspects;
 - iii. abnormal and emergency situations; and
 - iv. human factors.
- (ii) An air traffic controller shall demonstrate the ability to perform the associated procedures and tasks with a level of competence appropriate to the functions exercised.
- (iii) A satisfactory level of competence in practical skill shall be maintained. Compliance shall be verified by regular assessments. The frequency of these assessments shall be proportionate to the complexity and the level of risk associated with the type of service and the tasks performed.
- (d) Language proficiency
 - (i) An air traffic controller shall demonstrate proficiency to speak and understand English to the extent he/she is able to communicate effectively in voice-only (telephone/radiotelephone) and in face-to-face situations on concrete and work-related topics, including in emergency situations.
 - (ii) Whenever necessary in a defined volume of airspace for ATS service provision purposes, an air traffic controller shall also have proficiency to speak and understand the national language(s) to the extent described above.
- (e) Synthetic training devices (STD)

When an STD is used for practical training on situational awareness and human factors or to demonstrate that skills are acquired or maintained, it shall have a level of performance that allows adequate simulation of the working environment and operational situations appropriate to the training provided.
- (f) Training course
 - (i) Training shall be given by a training course, which may comprise theoretical and practical instruction, including training on an STD, if applicable.
 - (ii) A course shall be defined and approved for each type of training.
- (g) Instructors
 - (i) Theoretical instruction shall be given by appropriately qualified instructors. They shall:
 - i. have appropriate knowledge in the field where instruction is to be given; and
 - ii. have demonstrated the ability to use appropriate instructional techniques.
 - (ii) Instruction on practical skills shall be given by appropriately qualified instructors, who have the following qualifications:

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- i. meet the theoretical knowledge and the experience requirements appropriate to the instruction being given;
 - ii. have demonstrated the ability to instruct and to use appropriate instructional techniques;
 - iii. have practised instructional techniques in those procedures in which it is intended to provide instruction; and
 - iv. receive regular refresher training to ensure that the instructional competences are maintained.
- (iii) Instructors on practical skills shall also be or have been entitled to act as an air traffic controller.
- (h) Assessors
- (i) Persons responsible for assessing the skill of air traffic controllers shall:
- i. have demonstrated the ability to assess the performance of, and conduct tests and checks on air traffic controllers; and
 - ii. receive regular refresher training to ensure that the assessment standards are maintained up to date.
- (ii) Assessors on practical skills shall also be or have been entitled to act as an air traffic controller in those areas in which assessment is to be made.
- (i) Medical fitness of an air traffic controller
- (i) Medical criteria
- i. All air traffic controllers shall periodically demonstrate medical fitness to satisfactorily execute their functions. Compliance shall be shown by appropriate assessment taking into account the possible mental and physical degradation due to age;
 - ii. Demonstration of medical fitness, comprising physical and mental fitness, shall include the demonstrated absence of any disease or disability, which makes the person providing an air traffic control (ATC) service unable:
 - to execute properly the tasks necessary to provide an ATC service,
 - to perform assigned duties at any time, or
 - to perceive correctly his/her environment.
 - (ii) Where medical fitness cannot be fully demonstrated, mitigation measures that provide equivalent safety may be implemented.
5. **Service providers and training organisations**
- (a) Service provision shall not be undertaken unless the following conditions are met:
- (i) the service provider shall have directly or indirectly through contracts the means necessary for the scale and scope of the service. These means shall comprise but are not limited to the following: systems, facilities, including power supply, management structure, personnel, equipment and its maintenance, documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping;
 - (ii) the service provider shall develop and keep up-to-date management and operations manuals relating to the provision of its services and operate in accordance with

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those manuals. Such manuals shall contain all necessary instructions, information and procedures for the operations, the management system and for operations personnel to perform their duties;

- (iii) the service provider shall implement and maintain a risk-based management system to ensure compliance with the essential requirements in this Annex and aim for continuous proactive improvement of this system;
 - (iv) the service provider shall use only suitably qualified and trained personnel and implement and maintain training and checking programmes for the personnel;
 - (v) the service provider shall establish formal interfaces with all the other contributors to the service provision to ensure compliance with these essential requirements;
 - (vi) the service provider shall establish and implement a contingency plan covering emergency and abnormal situations that may occur in relation to its services;
 - (vii) the service provider shall establish and maintain an accident and incident prevention and safety programme including an occurrence reporting and analysis programme, which shall be used by the management system in order to contribute to the aim of continuous improvement of safety; and
 - (viii) the service provider shall make arrangements to verify that the safety performance requirements of any system and constituent they operate are met at any time.
- (b) ATC service provision shall not be undertaken unless the following conditions are met:
- (i) the prevention of fatigue of personnel providing an ATC service shall be managed through a rostering system. Such a rostering system needs to address duty periods, duty time and adapted rest periods. Limitations established within the rostering system shall take into account relevant factors contributing to fatigue such as, in particular, sleep deprivation, disruption of circadian cycles, night hours, cumulative duty time for given periods of time and also the sharing of allocated tasks between personnel;
 - (ii) the prevention of stress of personnel providing an ATC service shall be managed through education and prevention programmes;
 - (iii) the ATC service provider shall have in place procedures to verify that the cognitive judgement of personnel providing ATC services is not impaired or their medical fitness insufficient;
 - (iv) the ATC service provider shall take into account operational and technical constraints as well as human factor principles in its planning and operations.
- (c) Communication, navigation and/or surveillance service provision shall not be undertaken unless the following condition is met:

The service provider shall keep relevant airspace users and ATS units informed on a timely basis of the operational status (and changes thereof) of their services provided for ATS purposes.

(d) Training organisations

A training organisation providing training for personnel providing an ATC service shall meet the following requirements:

- (i) have all the means necessary for the scope of responsibilities associated with their activity. These means comprise, but are not limited to, the following: facilities,

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- personnel, equipment, methodology, documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping;
- (ii) implement and maintain a management system relating to safety and the standard of training, and aim for continuous improvement of this system; and
 - (iii) establish arrangements with other relevant organisations, as necessary, to ensure continuing compliance with these essential requirements.]

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